



PRE-ENGINEERING TECHNOLOGY

MINIMUM EQUIPMENT LIST

Instructional Equipment and Software

| Item Name | Count 15 Students | Count 20 Students | Count 25 Students | Description/Specification {Indicates PLTW Description} |
|---|-------------------------|-------------------------|-------------------------|---|
| Television/VCR/DVD | 1 | 1 | 1 | 25" |
| Overhead Projector with Screen | 1 | 1 | 1 | |
| A/V Cart/Media Storage Center | 1 | 1 | 1 | |
| Introduction to Engineering Design | | | | |
| Computer, Laptop (Teacher's) | 1 | 1 | 1 | Pentium III, 1GHz, Windows 2000, See detailed specs in PLTW purchasing manual. *Compatible with Autodesk Inventor 5.3 & Windows 2000 Software |
| Computer | 20 | 20 | 25 | Pentium III, 1GHz, Windows 2000 See detailed specs in PLTW purchasing manual. *Compatible with Autodesk Inventor 5.3 & Windows 2000 Software |
| Computer Hub, Ethernet | 2 | 2 | 2 | 3COM 16 Port 10-BT, 16 connections |
| Computer Printer | 1 | 1 | 2 | {HP Laserjet 5000N} |
| Computer Printer | 1 | 1 | 1 | 42" Print width, 96 MB memory, Ethernet adapter, and 1EEE-1284 A-B cable {HP DesignJet 800} |
| Toner Cartridge, Printer | 1 | 1 | 2 | {For HP Laserjet 5000N printer} |
| Projector, LCD | 1 | 1 | 1 | 1300 lumens, 800 x 600 SVGA, 1080 x 720 XGA {Infocus LP 340} or 800 lumens, 1024 x 768 XGA, SXGA compatible {LIGHTWARE LX*} |
| Work Station, Computer | 10 | 10 | 15 | Computer (2 students), 30" x 60" {Virco 84265} |
| Caliper, Dial | 20 | 20 | 25 | 6" {Starrett 12-2234} |
| Table | 10 | 10 | 15 | High pressure laminate top, 30" x 60" {Virco 8774} |
| Table, Folding | 10 | 10 | 15 | High pressure laminate top, 30" x 96" {Virco 62308} |
| PLTW Software Bundle (First Year) | 1 | 1 | 1 | {Inventor 5.3, Circuit Maker, Mastercam, Eshed Robotic Robocell} |
| Digital Electronics | | | | |
| Breadboard Trainer, Electronic | 13 | 13 | 13 | {Briefcase Martek XK -700} |
| Integrated Circuit Kit | 2 | 2 | 2 | See detailed specs in PLTW purchasing manual |
| Programmer | 1 | 1 | 1 | Windows based {EMP-11 PLD} |
| Oscilloscope | 1 | 1 | 1 | 20 MHz, Dual Trace {Kelvin KBL 740085} |
| PRINCIPLES OF ENGINEERING | | | | |
| Pneumatic Trainer | 1 | 1 | 1 | {Discovery I w/t CAI Software Shortess-Rawson # D1000} |
| Hydraulic Trainer | 1 | 1 | 1 | {Discovery II w/t CAI Software Shortess-Rawson # D2000} |

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|--|-------------------------|-------------------------|-------------------------|---|
| Mechanisms Trainer | 1 | 1 | 1 | {Discovery III w/t CAI Software Shortess-Rawson # D3000} |
| Principles of Engineering Kit | 4 | 4 | 5 | See detailed specs in PLTW purchasing manual {Fischertechnik Kit, PLTW-POE} |
| Structural Stress Analyzer | 1 | 1 | 1 | Complete with Safety Enclosure, Windows based software and OS |
| Adapter Set, Structural Stress Analyzer | 1 | 1 | 1 | Tensile Tester and Top Loading Adapter for Structural Stress Analyzer |
| Extension Unit with Power Supply | 5 | 5 | 8 | {Fishertechniks Extension (slave) unit with power supply} |
| Serial Interface | 5 | 5 | 8 | {Fishertechniks serial interfaces with power supply} |
| Mini-Processor | 1 | 1 | 1 | Portable {Digimatic DP-1HS} |
| COMPUTER INTEGRATED MANUFACTURING | | | | |
| Automated Manufacturing Package | 1 | 1 | 1 | Automated Manufacturing Package, See detailed specs in PLTW purchasing manual |
| Serial Interface | 5 | 5 | 8 | {Fishertechniks serial interfaces with power supply} |
| Slave Unit with Power Supply | 5 | 5 | 8 | {Fishertechniks extension slave unit with power supply} |
| Principles of Engineering Kit | 4 | 4 | 4 | See detailed specs in PLTW purchasing manual {Fischertechnik Kit, *PLTW-CIM} |
| Workbench | 2 | 2 | 2 | Multi-Purpose, 30" x 60", 3/4" Maple top, heavy metal legs {PP63-2908} |
| Cabinet | 1 | 1 | 1 | 9 Drawer Roller Base, 26" x 12" 19" {PP19-1196} |
| CLASSROOM FURNISHINGS | | | | |
| Classroom Equipment | 1 | 1 | 1 | Total Estimated Cost, See Below |